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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/549,944

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EXAMINER

SWOPE, SHERIDAN

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/549,944	Applicant(s) JONES ET AL.	
	Examiner SHERIDAN SWOPE	Art Unit 1652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 September 2010 and 09 December 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) 1-14, 17-20, 22-24 and 30-33 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15, 16, 21 and 25-29 is/are rejected.
- 7) ☒ Claim(s) 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>0410</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Applicants' filings of September 21 and December 9, 2009, in response to the action mailed April 20, 2009, are acknowledged. It is acknowledged that Claims 15, 16, 21, 25, 26, and 29 have been amended. Claims 1-33 are pending. The elected and prosecuted invention is directed to the Bacillus cellulase polypeptide of SEQ ID NO: 3. Claims 1-14, 17-20, 22-24, and 30-33 were previously withdrawn from further consideration pursuant to 37 CFR 1.142(b). Claims 15, 16, 21, and 25-29 are hereby considered.

Priority

The prior action stated that the priority date granted for the elected invention is April 28, 2004, the filing date of PCT/US04/13175, which disclosed the recited invention. In response to this priority date, Applicants argue the following. As amended, the claims now require at least 95% amino acid sequence identity to SEQ ID NO: 3, which is described in the Provisional Application. Applicants submit that the application is, therefore, entitled to the priority date of the Provisional Application.

This argument is not found to be persuasive because, the Examiner fails to find that US 60/467,255 discloses the genus of polypeptides having at least 95% identity with SEQ ID NO: 3 or the encoding polynucleotides thereof. US 60/467,255 also fails to disclose a polynucleotide having 90% identity with SEQ ID NO: 1 (Claims 21). Applicants have also not identified such support. Therefore, the priority date granted for the elected invention is April 28, 2004, the filing date of PCT/US04/13175, which disclosed the recited invention.

Specification-Objections

Objection to the specification, for describing Figures 1-3, while no figures have been filed, is maintained. In response, Applicants assert that the Drawings were filed and are available on PAIR. The Examiner fails to see the Drawings in Public PAIR and the Drawings are not within the paper copy of the filed. It is requested that Applicants kindly refile their Drawings.

Claims-Objections

Claim 21(ii) is objected to for “an cellulase”, which should be corrected to “a cellulase”.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Utility

Based on the assumption that SEQ ID NO: 1 and SEQ ID NO: 3 are as shown in Figures 2 and 3, respectively, of US 60/467,255, the polynucleotide of SEQ ID NO: 1 and the protein of SEQ ID NO: 3 have utility based on expression in heterologous cells and enzymatic analysis using carboxymethylcellulose (Examples 3-6). No claims are rejected under 35 USC 101/112, utility/enablement.

Claim Rejections - 35 USC § 112-Second Paragraph

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 1652

Claim 21 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention for the following reasons.

For Claim 21(i), “90% sequence identity to presented as SEQ ID NO: 1”, would be more clearly stated as “90% sequence identity to SEQ ID NO: 1”.

Claim 21 is indefinite for reciting that polynucleotide homology is to be analyzed using the BLOSUM 30 matrix; said matrix is used for protein alignments, not polynucleotide alignments.

Claim 21 is rendered indefinite for improper antecedent usage as follows.

For Claim 21(iii), “an cellulase” should be corrected to “the cellulase”.

Examiner’s note: Regarding the phrase “the biological activity of a cellulase” in Claims 15 and 21 and the phrase “biologically active fragment” in Claim 25, it is assumed that the claims mean cellulase enzymatic activity.

Any subsequent rejection, based on clarification of the above phrases and terms, will not be considered a new ground for rejection.

Claim Rejections - 35 USC § 112-First Paragraph

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Enablement

Rejection of Claims 15, 16, 21, and 25-29 under 35 U.S.C. 112, first paragraph/enablement, for reasons explained in the prior action, is maintained. In support of their request that said rejection be withdrawn, Applicants provide the following arguments.

(A) Claims 15, 21, and 25, from which the other rejected claims depend, have been amended to delete "fragment" language and to increase the required sequence identity to 95%. Applicants submit that this level of identity is very reasonable.

(B) Applicant further note that the "comprising" language in claims does not mean that the required activity can be supplied by a polypeptide other than that expressly recited in the claim. For example, claim 15 (as amended) specifies a "substantially purified cellulase polypeptide with the biological activity of a cellulase, comprising..." It is clear that the substantially purified cellulase polypeptide that is defined by the claims has the cellulase activity. Therefore, Applicants disagree with the Examiner's interpretation of the claim as stated in the rejection.

These arguments are not found to be persuasive for the following reasons.

(A) Reply: It is acknowledged that Claims 15, 21, and 25 have been so amended. Claim 15(a) is so broad as to encompass the genus of any cellulase comprising a sequence having at least 95% identity to SEQ ID NO: 3. Said genus encompasses polypeptides wherein the sequence having at least 95% identity to SEQ ID NO: 3 does not have cellulase activity. The specification fails to provide any example of said genus or to provide guidance as to the relationship between the structure and the desired function such that the making and using would not require undue experimentation. Claim 21(a) is so broad as to encompass the genus of any

Art Unit: 1652

cellulase encoded by a sequence having at least 90% identity to SEQ ID NO: 1. Said genus is extremely large and the specification fails to provide any example of said genus or to provide guidance as to the relationship between the structure and desired function such that the making and using would not require undue experimentation. Claim 25(a) is so broad as to encompass the genus of any polypeptide having at least 95% identity with SEQ ID NO: 3, wherein the polypeptide has any or no function. The specification fails to provide any example of said genus or to provide guidance as to the relationship between the structure and the desired function such that the making and using would not require undue experimentation.

(B) Reply: The use of "comprising" language in claims does mean that the required activity can be supplied by a polypeptide other than that expressly recited in the claim. If Applicants wish to recite that the region of the sequence homologous to SEQ ID NO: 3 has the desired activity, Claim 15(a), for example, should be amended to:

“(a) an amino acid sequence having at least 95% sequence identity to the amino acid sequence presented in Figure 3 (SEQ ID NO:3) and having cellulase activity;”

Applicants' representative is welcome to contact the Examiner to discuss possible amendments to overcome this rejection.

For these reasons and those explained in the prior action, rejection of Claims 15, 16, 21, and 25-29 under 35 U.S.C. 112, first paragraph/ enablement, is maintained.

Written Description

Rejection of Claims 15, 16, 21, and 25-29 under 35 U.S.C. 112, first paragraph/written description, for reasons explained in the prior action, is maintained. In support of their request that said rejection be withdrawn, Applicants provide the same arguments stated above for the

Art Unit: 1652

lack of enablement rejection. These arguments are not found to be persuasive for the reasons stated above.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 15, 16, 21, 25-27, and 29 are rejected under 35 U.S.C. 102(e) as being anticipated by Jones et al, 2004 (WO/2004/099370; priority date 30-APR-2003). Jones et al teaches a Bacillus polynucleotide encoding a polypeptide having 95% identity with SEQ ID NO: 3, a vector, comprising the polynucleotide, a host cell comprising the vector, a method of making the protein, a laundry detergent comprising the protein, and a feed additive comprising the protein. Therefore, Claims 15, 16, 21, 25-27, and 29 are rejected under 35 U.S.C. 102(e) as being anticipated by Jones et al, 2004 (WO/2004/099370; priority date 30-APR-2003).

The applied reference has common Applicants with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C.

Art Unit: 1652

102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jones et al, 2004 in view of Fowler et al, 2002. The teachings of Jones et al are described above. Jones et al do not teach a dish detergent comprising their cellulase. However, adding cellulases to dish detergents was well-known in the art; for example, see Fowler et al. It would have been obvious to a person of ordinary skill in the art to make and use a dish detergent comprising the cellulase of Jones et al. Motivation to do so is provided by the fact that cellulases aid cleaning of dishes. The expectation of success is high, as adding cellulases to dish detergents was well-known in the art. Therefore, Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jones et al, 2004 in view of Fowler et al, 2002.

Allowable Subject Matter

No claims are allowable.

Applicant's amendment necessitated any new grounds of rejection presented in this Office action. Any new references were cited solely to support rejection(s) based on amendment

Art Unit: 1652

or rebut Applicants' arguments. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Regarding filing an Appeal, Applicants are referred to the Official Gazette Notice published July 12, 2005 describing the Pre-Appeal Brief Review Program.

Final Comments

To insure that each document is properly filed in the electronic file wrapper, it is requested that each of amendments to the specification, amendments to the claims, Applicants' remarks, requests for extension of time, and any other distinct papers be submitted on separate pages. It is also requested that the serial number of the application be referenced on every page of the response.

It is also requested that Applicants identify support, within the original application, for any amendments to the claims and specification.

Art Unit: 1652

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheridan L. Swope whose telephone number is 571-272-0943.

The examiner can normally be reached on M-F; 9:30-7 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Wang can be reached on 571-272-0811. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published application may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on the access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/SHERIDAN SWOPE/
Primary Examiner, Art Unit 1652